

# **A Comprehensive Learning Management System with Job Portal for Skill Development and Career Placement**

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The Data-Driven AI in Education platform is a comprehensive, webbased system designed to enhance the learning experience through data integration, personalized recommendations, and actionable insights. It bridges the gap between students, faculty, and administrators, fostering an adaptive educational ecosystem. The platform allows students to track and share their interactions with popular online learning platforms like Coursera, edX, and Udemy, while receiving personalized course recommendations based on their learning preferences and engagement history. Faculty and staff benefit from advanced tools to collect, analyze, and generate reports on student engagement, providing real-time insights into learning outcomes and platform effectiveness. These reports are submitted to administrators, enabling data-driven decisions to enhance institutional learning strategies. Key modules include a Recommendation Module that employs collaborative filtering for tailored course suggestions, an Analytics & Reporting Module that generates visual insights into student progress, and a Notification Module for timely course updates. A strong emphasis is placed on security with the implementation of encrypted data storage, secure authentication, and role-based access control. This platform ultimately aims to improve student learning outcomes, promote efficient course selection, and enhance institutional decision-making. By fostering a personalized learning environment, it contributes to the growth of a more informed and responsive educational system.